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| 09/839,581 | 04/20/2001 | Fred Allegrezza | 03224.0001U1 | 1423 |
| 23859 7590 06/13/2007 NEEDLE & ROSENBERG, P.C. SUITE 1000 999 PEACHTREE STREET ATLANTA, GA 30309-3915 | | | EXAMINER LAMBRECHT, CHRISTOPHER M | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/839,581

Applicant(s)

ALLEGREZZA, FRED

Examiner

Chris Lambrecht

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1- is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. As noted by Applicant at page 2 of the reply, the citations to Chong, Jr., found in the previous Office action correspond to the Chong, Jr., reference (US 6,604,155 B1) listed on the notice of references cited (PTO-892 mailed Sept. 11, 2006).
2. Applicant's arguments filed 12 March 2007 have been fully considered but they are not persuasive.

At page 4 of the reply, Applicant argues that Chong fails to disclose a “switch” as claimed. Applicant contends that, because the switch 36 disclosed in Chong is described as a conventional switch, Chong’s switch “merely routes data in response to direct routing commands”; and thus, Chong fails to teach a switch that “independently routes” data requests and response as claimed. The Examiner disagrees.

Switch 36 of Chong does not route data “in response to direct routing commands” as alleged by Applicant. Rather, Chong discloses that switch 36 routes packets based on their destination addresses. (Chong, col. 12, ll. 45-62.)

Applicant’s specification, page 3, lines 27-28 describes a switch that independently routes requests and responses: “[s]witch 250 is a self-learning switch that does not require workstation configuration.” Chong nowhere discloses that switch 36 “requires workstation configuration.” Applicant’s specification provides no further clarification as to a details of a switch that independently routes as claimed. Thus, there is nothing to support that argument that, simply because Chong describes switch 36 as

conventional, switch 36 does not “independently” route data within the meaning of the claims.

At page 6 of the reply, Applicant argues that even if switch 36 of Chong does independently route data, it still does not route “based on directory information” as claimed. However, Chong discloses that the switch routes data packets based on their destination addresses, which either storage controller 38 or transfer node 34 can derive by referencing “lookup table information.” (Chong, col. 12, ll. 36-44.) This lookup table information constitutes directory information as claimed. Since this directory information is used to addresses the request and response packets routed by the switch, the switch therefore routes “based on directory information” as claimed.

At page 7 of the reply, Applicant argues that Chong teaches away from a switch that independently routes data as claimed because Chong refers to switch 36 as conventional. However, as discussed above, this argument lacks basis in Applicant’s specification. The Examiner finds nothing in Chong or the present application that distinguishes the switch as presently claimed and the switch disclosed by Chong.

Accordingly the rejections of claims 1-24, 49, and 50 are continued as set forth in the previous Office action and repeated below. Applicant’s failure to traverse facts Officially noticed in the prior Office action is treated as an admission of the facts so noticed.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, 3–13, 15–24, 49, and 50 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,604,155 to Chong, Jr. (Chong).

Regarding claim 1, figures 9 and 10 of Chong illustrate a system [32] comprising a plurality of storage devices [18A,B], a plurality of transfer nodes [34A–C], and a switch [36] arranged between the processors and the storage devices. Col. 14, ll. 8–16. Data is distributed is distributed across the plurality of storage devices, col. 7, ll. 5–14, 54–58; and each transfer node includes a processor [52], fig.4, col. 8, ll. 1–5. Upon receipt of a request for retrieving data, a processor is designated for handling the request. Col. 11, ll.34–38, describing receipt of a read command that identifies transfer node as the commands destination. The switch independently routes a request for retrieving data from the designated processor directly to the storage devices containing the requested data and independently routes responses from the storage devices directly to the designated processor. Col. 6, ll. 44–48, 58–64, col. 12, l. 47 – col. 12, l. 7.

As to claim 3, Chong discloses the system of claim 1, as discussed above, wherein the switch routes the request for retrieving data based on directory information obtained by the processor, col. 7, ll. 30–44.

As to claim 4, Chong discloses the system of claim 3, as discussed above, wherein the processor obtains the directory information from the storage devices, col. 7, ll. 59–67.

As to claims 5–7, Chong discloses the system of claim 1, as discussed above, further comprising at least one high speed, fiber channel network connected to the storage devices and arranged between the switch and the storage devices, col. 6, ll. 65–67; and wherein the switch accommodates a plurality of high speed networks and connected storage devices, col. 8, ll. 23–28.

As to claim 8, Chong discloses the system of claim 1, as discussed above, wherein the data is video stream data, col. 1, ll. 14–20.

As to claims 9 and 10, Chong discloses the system of claim 1, as discussed above, wherein storage devices are disk drives and the data is stored in a redundant array of inexpensive disks (RAID) format among the disk drives, col. 7, ll. 5–8.

As to claims 11 and 12, Chong discloses the system of claim 1, as discussed above, further comprising a high speed, asynchronous transfer mode (ATM) network [40A] for delivering the retrieved data from the designated processor to a client device [12], fig.3A, col. 6, l. 67 – col. 7, l. 4.

Regarding claim 13, Chong discloses the claimed method as discussed above with respect to claim 1.

As to claims 15–24, Chong discloses the method of claim 13, as discussed above, in conjunction with the limitations recited in claims 15–24; these limitations are addressed in the rejections of claims 3–12, above.

Regarding claim 49, see Chong as applied to the system of claim 4, above.

Regarding claim 50, see Chong as applied to the method of claim 16, above.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 2 and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Chong.

Regarding claims 2 and 14, Chong discloses the system of claim 1 and method of claim 13, as discussed above, but fails to disclose a resource manager for designating a processor to handle a request, based on the load of each processor. Chong does disclose, however, that the processors are coupled in parallel to provide increased bandwidth. Col. 14, ll. 8–16. Official notice is taken that it was well known in the art at the time of Applicant's invention to implement parallel processor arrangements using a resource manager that designates a processor to handle an operation based on the load of each processor. By distributing load evenly among the processors, this implementation prevents inefficiencies that result from overloading and underloading of individual processors. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Chong to include a resource manager for designating a processor to handle a request, based on the load of each processor, for the benefit of enabling more efficient handling of data retrieval requests.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chris Lambrecht whose telephone number is (571) 272-7297. The examiner can normally be reached on Mon-Fri, 9AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Chris Lambrecht
Examiner
Art Unit 2623

/cl/



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